Project 1011983

Field-Portable Immunoassay Instruments and Reagents to Measure Chelators and Mobile Forms of Uranium

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RESULTS TO DATE: A collaborator in the Chemistry Department at Tulane University, Dr. Harry Ensley, has synthesized a new bifunctional chelator with specificity for ionic mercury (Hg2+) and methymercury (MeHg+). These chelators are based upon phenantholine derivative containing sulfhydryl functional groups. Experiments are underway to generate protein conjugates of this chelator to use in immunizations and screening.

DELIVERABLES: Publications since last report:

1. R.C. Blake II, A.R. Pavlov, M. Khosraviani, H.E. Ensley, G.E. Keifer, H. Yu, X. Li, and D.A. Blake (2004) Novel monoclonal antibodies with specificity for chelated uranium((VI): Isolation and binding properties, Bioconjugate Chemistry, 15:1125-1136.